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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,962

11/22/2005

Bryan E. Cole

M0025.0336/P336

6056

24998 7590 06/09/2010

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EXAMINER

DEJONG, ERIC S

ART UNIT

PAPER NUMBER

1631

MAIL DATE

DELIVERY MODE

06/09/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/540,962	<b>Applicant(s)</b> COLE ET AL.	
	<b>Examiner</b> ERIC S. DEJONG	<b>Art Unit</b> 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 14 is/are pending in the application.
- 4a) Of the above claim(s) 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/02/2010</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED OFFICE ACTION**

Applicants response filed 03/02/2010 is acknowledged.

Claims 1-10 and 14 are pending. Claims 11-13 are cancelled. Claim 14 (Group III) is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 05/04/2009. Claims 1-10 are currently under examination.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted filed on 03/02/2010 is acknowledged and has been considered by the examiner.

### ***Specification***

The previous objections to the disclosure is withdrawn in view of the amendments made to the instant specification accompanied by a statement executed by a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. See page 7, final paragraph, of applicants response filed 03/02/2010.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. This rejection is maintained from the previous Office action.

The instant claims are drawn to a method of generating a representation of the compositional distribution of a chemical sample as a function of depth. The recited process comprises irradiating a sample with radiation having, but not limited to, a frequency range of 25GHz to 100THz, detecting radiation therefrom, obtaining frequency data, and deriving a representation from the frequency data. In the instant claims, the sample acted upon is unspecified and, therefore, generically encompasses any and all chemical content. Further, the instant claims fail to specify what the final content of the resultant representation contains or how it conveys any specific or substantial function, feature, or characteristics of the generic sample that was investigated.

As such, the instant claims do not recite any particular improvement or resultant characteristic imparted to the generic sample investigated by the instant process nor how the recited process analysis would be used to yield any useful information to said investigated sample. The Court of Patent Appeals and Interferences has stated:

"Practical utility is a shorthand way of attributing "real-world" value to claimed subject matter. In other words, one skilled in the art can use a claimed discovery in a manner which provides some immediate benefit to the public." A 'use' to do further research is not considered a utility which provides an "immediate benefit" to the public.  
Examples of situations requiring further research to identify or reasonably confirm a "real world" context of use, and which do not have utility under 35 USC 101, as set forth in MPEP 2107.01.1,

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include:

(A) Basic research such as studying the properties of the claimed product itself or the mechanisms in which the material is involved', and

(C) A method of assaying for or identifying a material that itself has no specific and/or substantial utility.

The instant claims encompass a process of basic research drawn to studying properties (sequence variation) of a protein structure and as such do not result in an “immediate benefit” to the public. As noted in the utility guidelines (see Federal Register, December 21, 1999, Vol. 64, No. 244), basic research on a product to identify properties is an insubstantial utility (see page 6 of the Utility guideline training materials). Therefore, the instant claims do not have a substantial utility.

### ***Claim Rejections - 35 USC § 112***

Claims 1-10 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

### ***Response to Arguments***

Applicant's arguments filed 03/02/2010 have been fully considered but they are not persuasive.

In regards to the rejection of claims under 35 USC for lacking patentable utility, applicants argue that independent claim 1 has been amended to recites “a method of generating a representation of the compositional distribution of a chemical sample as a function of depth for facilitating an analysis of the quality of the chemical sample”.

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Applicants further argue that the claim has been further amended to recite the “representation shows whether the compositional distribution is uniform”. Applicants assert that these amendments are sufficient to overcome the instant rejection.

In response, it is noted that the first amendment argued by applicants appear in the preamble of claim 1. While the amendment may be considered an intended use of the method, the recited process steps themselves involve no active step wherein a “compositional distribution of a chemical sample as a function of depth” is actually determined. Further, the additional amendment to the claim to now recite “wherein the representation shows whether the compositional distribution is uniform” has only been considered as a statement of intended use since, as stated above, there is no active step in the instant claim wherein a “compositional distribution is uniform” is actually determined.

Applicants further argue claim 2 has been amended to recite in the preamble “for facilitating an analysis of the quality of the chemical sample” and further, “wherein the representation of the shows whether the granulation is uniform. Applicants assert that these amendments are sufficient to overcome the instant rejection.

As discussed above, an amendment to the preamble of a claim only provides a suggestion of intended use with a given claim. As such, the amendments to the amendment of claim to expressly recite the intended use of being used for facilitating the analysis of the quality of the chemical sample does not alter the scope or content of the instant claim. Similarly, the recitation of an intended use wherein a representation

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shows whether the granularity is uniform does not impart any meaningful limitation to the instant claim. It is emphasized that the amended claim 2 lacks any recitation of a positive step wherein a determination of uniform granularity of a sample is determined.

Since the rejection of claims under 35 USC 112, 1<sup>st</sup> paragraph for lack of enablement is predicated by the rejection of claims under 35 USC 101 for lack of utility and, further, since the examiner has maintained the rejection of claims under 35 USC 101 for lack of utility, the rejection of claims under 35 USC 112, 2<sup>nd</sup> paragraph is also maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC S. DEJONG whose telephone number is (571)272-6099. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIC S. DEJONG/  
Primary Examiner, Art Unit 1631